## A CLOSER LOOK



Whitetail bucks

## WHITETAIL BREEDING BEHAVIOR

The spark that ignites the rut, a whitetail buck's enthusiastic preoccupation with the opposite sex, is not frost on the pumpkin, falling leaves or snow. It's the animal's response to the fading light of autumn – a happening known as photoperiodism – that stirs hormonal changes.

"What may allow it to happen more one day than another is maybe a cold snap or perhaps a full moon that allows deer to be active longer at night," said Bill Jensen, North Dakota Game and Fish Department big game biologist. "But what drives the rut is photoperiod."

While deer start showing signs of breeding behavior as early as September, the peak of the rut in North Dakota, Jensen said, is November 20-25. As fall slips into winter, rutting activity continues into December and January.

The rut begins, scientists tell us, when the first does go into estrus, the 24- to 36-hour period when a female whitetail is receptive to breeding. Not all the moms-to-be come into estrus at the same time.

Scientists don't know everything about the rut, but they're learning more all the time thanks to sophisticated genetic techniques. For example, a recent study in Michigan revealed that more than 20 percent of the twin fawns in the research area were fathered by two bucks. "That's not the way we thought it was supposed to happen," Jensen said.

Also, because researchers knew the genetics of the deer involved, it was learned that the most dominant bucks with the best antlers weren't necessarily doing most of the breeding, either.

Before and during the rut, bucks paw at the ground to make scrapes, leaving scent on these bare patches of dirt. "Bucks leave these visual and scent markers to advertise their presence to does, and to tell other bucks that 'I'm here, I'm bad, so stay away,'" Jensen said.

There are times when posturing isn't enough and whitetail bucks go antler-to-antler, pushing and twisting until dominance is established. "A lot of the rutting behavior is just for show because if you can show dominance without a fight, then that's energy saved," Jensen said.

When the peak of the rut passes, many adult bucks are spent, weary of the single-minded preoccupation of breeding. Testosterone levels drop, followed by their antlers. "When that happens, bucks are out of the rut entirely," Jensen said.

For some, those with enough strength to make it through winter, there is always next year.

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